

EXHIBIT A
Pismo Creek Fish Passage Improvement Project
STATEMENT OF WORK

Under direction of the Grantor, and under the following conditions and terms, the Grantee will:

1. Implement the design completed under contract P0640401 to remediate the steelhead migration barrier at the Union Pacific Railroad Crossing on Pismo Creek by removing the existing fish ladder and constructing a roughened channel to provide fish passage.
2. Conduct work on Pismo Creek at the Union Pacific Railroad Crossing approximately 6 miles upstream from the Pacific Ocean. The project is located in Section 30 of Township 31S, Range 13E of the Arroyo Grande U.S.G.S. 7.5 Minute Quadrangle, as depicted in Exhibit C, Project Location Map, which is attached and made part of this agreement by this reference.
3. Remediate fish passage barrier on Pismo Creek by completing the following work:
 - a. Obtain Landowner Access Agreement (LAA) for work on all property where work will occur.
 - b. Submit LAA and a final schedule of work to the Grant Manager for DFG review and approval at least 30 days prior to beginning work.
 - c. Submit Final Engineered plans for project to Grant Manager and DFG Engineer for DFG review and approval. The plans will include details of construction, scaled drawings of the site plan and construction as well as specifics on pool and ramp length, depth, location, and riparian vegetation, water diversion, and fish relocation if necessary. Final plans must be approved in writing by the Grant Manager before beginning work.
 - d. If necessary, dewater the channel at the project site by building an upstream coffer dam from clean gravel and divert flow through a CMP culvert sized to allow for unimpeded flow downstream. When construction is complete, the coffer dam and diversion will be removed from the stream channel.
 - e. Establish an equipment staging area and rock entrances at locations on final plans as approved.
 - f. Conduct necessary fish removal and relocation activities.
 - g. Move and/or collect, and store in the project vicinity, suitable native vegetation for later use in revegetating disturbed areas.
 - h. Demolish and remove existing fish ladder. Remove footings to a depth of 2 feet below finished grade. Concrete used as "engineered fill" shall be placed a minimum of 6 feet below finished grade. Material not utilized will be disposed of off site at an appropriate land fill.
 - i. Perform clearing and grubbing, rough grading, and install rock placements according to plans. The roughened channel will extend approximately 900 feet downstream of the railroad crossing and will consist of a series of rocky ramps with resting pools between them. The project will include a series of 6 resting pools of approximately 35 feet in length, separated by 60 foot long rocky ramps. The low flow channel will have approximate dimensions of 6 feet wide by 1 foot deep to ensure adequate depth for fish passage.
 - j. Install satellite telemetry-linked stream flow gage at approved location; work to be done by approved subcontractor (i.e., USGS)
 - k. Calibrate the rating curve for the gage with a range of discharge measurements utilizing USGS-accepted protocols. Rating curve calibration and the frequency of measurements shall be approved by DFG.
 - l. Maintain the gage and record gage measurements for a period of 4 years.
 - m. Upload electronic streamflow data hourly on USGS streamflow reporting website.
 - n. Install permanent erosion control, irrigation, and revegetation.
 - o. Remove temporary diversion, erosion, and sediment control features.

- p. Demobilize.
 - q. Maintain vegetation for a period of 3 years.
4. All habitat improvements will follow techniques described in the Third Edition of the *California Salmonid Stream Habitat Restoration Manual* (Flosi et al. 1998) and the *California Salmonid Stream Restoration Manual*, Third Edition, Volume II, Part XI, January 2004.
 5. Submit a progress report to the Contract Manager at least once every three months. In addition, if work has been completed under the contract during the three month reporting period, submit an invoice, and a record of in-kind services provided during the invoice billing period. The invoice submission shall include a separate record of specific record of specific expenditures in the format of Exhibit B.
 6. Upon completion of the project, the Grantee shall submit one (1) copy of a draft final report not later than January 31, 2014 for review and comment. Within 30 days of receipt of the draft report, the Project Manager shall submit his final comments to the Grantee. Upon completion of the project, the Grantee shall submit two (2) hard copies of a final written report and one (1) electronic, *Microsoft Word* compatible, on a CD. The report shall not be considered final until approved and accepted by the grant manager. The report shall include, but not necessarily be limited to the following information:
 - Grant number;
 - Project name;
 - Geographic area (e.g., watershed name);
 - Location of work – show project location using U.S.G.S. 7.5 minute topographical map or appropriately scaled topographical map;
 - Geospatial reference/location (lat/long is preferred – defined as point, line, or polygon);
 - Project start and end dates;
 - Total of each fund source, by line item, expended to complete the project, breaking down Grant dollars, by line item, and any other funding, including type of match (cash or in-kind service);
 - Total number of volunteer hours; dollar value of volunteer work; description of how the dollar value of the volunteer labor was determined; dollar value of non-volunteer donated labor; and description and dollar value of non-labor in-kind contributions to the project.
 - Expected benefits to anadromous salmonids from the project;
 - Labeled before and after photographs of any restoration activities and techniques;
 - Specific project access using public and private roads and trails, with landowner name and address;
 - Complete as built project description; and
 - Report measurable metrics for the project by responding to the restoration project metrics listed below.

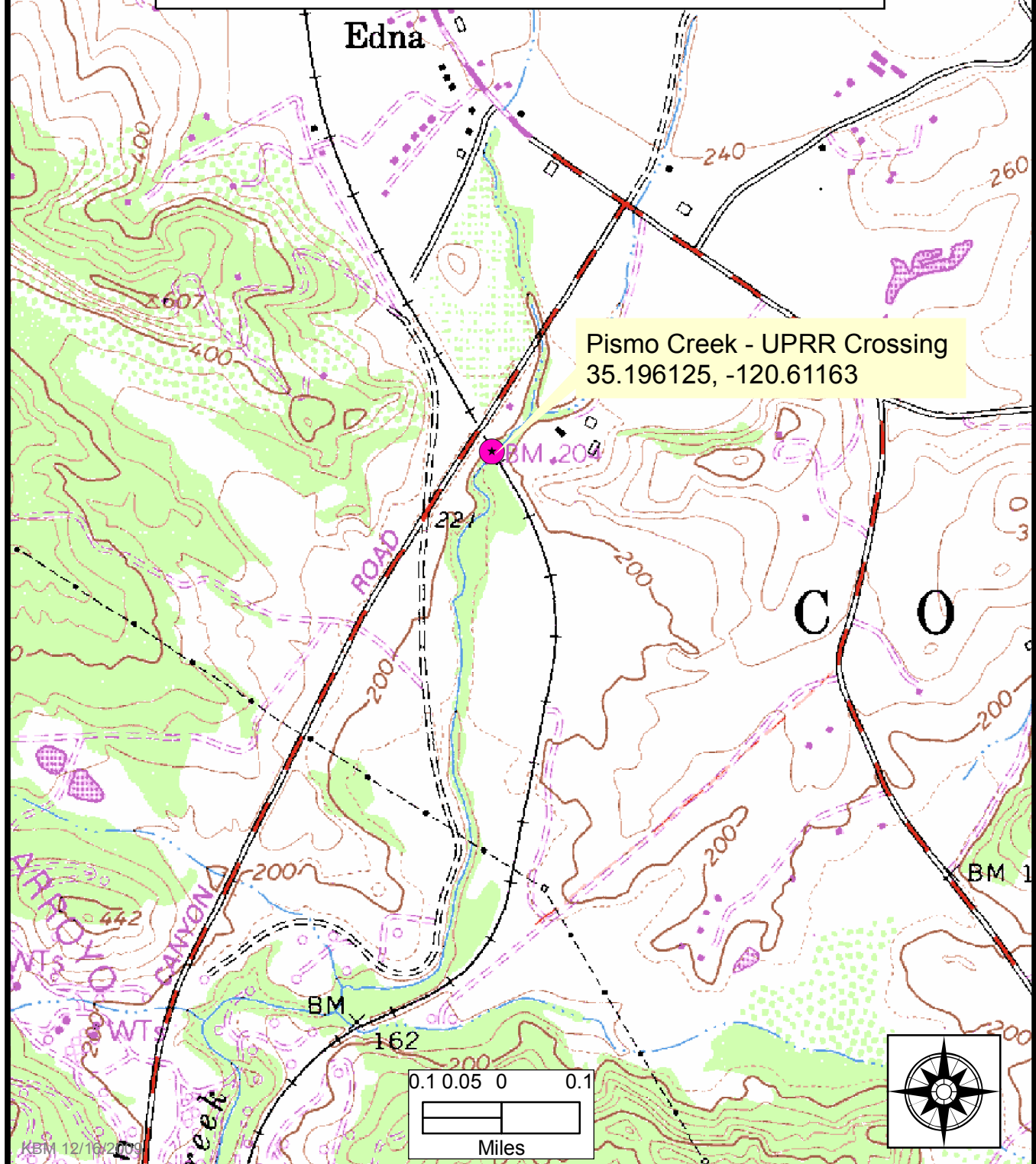
Habitat Protection and Restoration Projects – Reporting Metrics (HB)

Instream Barrier Modification for Fish Passage (HB)

- Miles of stream treated (include only the actual length of stream *treated* by the project, not the length of stream *affected* by the project);
- Number of barriers treated for fish passage;
- Type(s) of barriers treated, select from: diversion dam; push-up dam; wood or concrete dam; grade control structures (weirs); logs; or debris;
- Miles of stream made more accessible by removing barriers (accessible to next barrier or to upstream end of anadromy);
- If monitoring was included in the project:

- Type of monitoring, select from: implementation monitoring; compliance monitoring-engineering design; compliance monitoring-project design; pre-treatment monitoring; post treatment monitoring; salmonid monitoring; non-salmonid biological monitoring; water flow monitoring; or physical monitoring; and
 - Location of monitoring, select from: onsite; upstream; downstream; or upslope.
- 3. The Grantee will acknowledge the participation of the Department of Fish and Game, Fisheries Restoration Grant Program funds on any signs, flyers, or other types of written communication or notice to advertise or explain the **Pismo Creek Fish Passage Improvement Project**.

Exhibit C
Pismo Creek Fish Passage Improvement
Project Location Map
T31S, R13E, Arroyo Grande NE Quad
San Luis Obispo County



California Department of Fish and Game
Natural Diversity Database
Selected Elements by Common Name - Portrait
723373_060_HB_Pismo Creek Fish Passage Improvement
T31, R13E, S30

Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
1 California condor <i>Gymnogyps californianus</i>	ABNKA03010	Endangered	Endangered	G1	S1	
2 California red-legged frog <i>Rana draytonii</i>	AAABH01022	Threatened		G4T2T3	S2S3	SC
3 California spotted owl <i>Strix occidentalis occidentalis</i>	ABNSB12013			G3T3	S3	SC
4 Coast Range newt <i>Taricha torosa torosa</i>	AAAAF02032			G5T4	S4	SC
5 Hoover's bent grass <i>Agrostis hooveri</i>	PMPOA040M0			G2	S2.2	1B.2
6 Ojai fritillary <i>Fritillaria ojaiensis</i>	PMLILOV0N0			G1	S1.2	1B.2
7 Palmer's monardella <i>Monardella palmeri</i>	PDLAM180H0			G2	S2.2	1B.2
8 San Luis Obispo County lupine <i>Lupinus ludovicianus</i>	PDFAB2B2G0			G2	S2.2	1B.2
9 San Luis Obispo mariposa-lily <i>Calochortus simulans</i>	PMLILOD170			G2	S2.3	1B.3
10 San Luis Obispo sedge <i>Carex obispoensis</i>	PMCYP039J0			G2	S2.2	1B.2
11 Santa Margarita manzanita <i>Arctostaphylos pilosula</i>	PDERI04160			G2	S2.2	1B.2
12 Yuma myotis <i>Myotis yumanensis</i>	AMACC01020			G5	S4?	
13 foothill yellow-legged frog <i>Rana boylei</i>	AAABH01050			G3	S2S3	SC
14 leafy tarplant <i>Deinandra increscens ssp. foliosa</i>	PDAST4R0U4			G4G5T2	S2.2	1B.2
15 prairie falcon <i>Falco mexicanus</i>	ABNKD06090			G5	S3	
16 steelhead - Central Valley ESU <i>Oncorhynchus mykiss irideus</i>	AFCHA0209K	Threatened		G5T2	S2	
17 steelhead - central California coast ESU <i>Oncorhynchus mykiss irideus</i>	AFCHA0209G	Threatened		G5T2Q	S2	
18 western pond turtle <i>Actinemys marmorata</i>	ARAAD02030			G3G4	S3	SC
19 western red bat <i>Lasiurus blossevillei</i>	AMACC05060			G5	S3?	SC
20 yellow-flowered eriastrium <i>Eriastrum luteum</i>	PDPLM03080			G2	S2.2	1B.2

EXHIBIT A
SAN LUIS OBISPO CREEK WATERSHED *ARUNDO* MANAGEMENT PROGRAM
STATEMENT OF WORK

Under direction of the Grantor, and under the following conditions and terms, the Grantee will:

1. Improve spawning and rearing steelhead habitat, fish passage, and riparian canopy by removing *Arundo donax* along 1.77 miles of lower San Luis Obispo Creek. The objective is to continue removal of this pest species in the watershed to restore natural form and function to the riparian corridor and creek.
2. Conduct work on San Luis Obispo Creek in the City of San Luis Obispo from 4.07 to 2.33 miles upstream of the Pacific Ocean. The project is located in Township 31S, Range 12E of the San Miguelito Land Grant, Pismo Beach U.S.G.S. 7.5 Minute Quadrangle, as depicted in Exhibit C, Project Location Map, which is attached and made part of this agreement by this reference.
3. Improve habitat for steelhead in San Luis Obispo Creek by completing the following work:
 - a. Obtain Landowner Access Agreement for work on all property where work will occur.
 - b. Submit Landowner Access Agreements and a final schedule of work to the Grant Manager for DFG review and approval at least two weeks prior to beginning work.
 - c. Notify landowners of treatment dates to provide adequate notice that work will be conducted on their property.
 - d. Map removal area and take 'before' photos for submission with final report.
 - e. Working upstream to downstream, a combination of manual removal and chemical applications will be used to eradicate *Arundo* in the project area. Manually remove clumps of *Arundo* that have a diameter of three (3) feet or greater, and/or clumps with a height of over six (6) feet. Removal will consist of a single cut at approximately one (1) foot above the base of the cane. Allow the cut plants to grow to three (3) feet for chemical treatment. Dispose of cut *Arundo* at an appropriate waste facility. For infestations with clump diameters less than three (3) feet and height over six (6) feet, the grass will be pulled over, horizontal with ground surface, and sprayed.
 - f. Conduct herbicide applications April through November at least 24 hours before rain is forecast. Herbicide application will be conducted by a licensed herbicide applicator, who will follow all label instructions for the herbicide and reporting requirements to the San Luis Obispo County Department of Agriculture. The herbicide used within 25 feet of surface water will be glyphosate, primarily in the form of Aquamaster®, which is approved for use near surface water. Herbicides containing the active ingredient fluazifop-p-butyl (which is in Fusilade DX®, a grass-specific herbicide) is not approved for use near surface water, will only be used in areas more than 25 feet from surface water. Care will be taken to avoid application or drift onto native vegetation. Standard treatment of a foliar spray application of 1.17% by volume Fusilade DX ® with a 0.4% addition of non-ionic surfactant, 1.17% dye and .4% spreader oil adjuvant will be used. A formulation of 7% by volume of Aquamaster® with a 0.4% addition of non-ionic surfactant and 1.17% dye will also be added to the herbicide mixture. Herbicide application will focus on all *Arundo* plants (established or cut with re-growth) in the project reach.
 - g. Data entry on treatment information will be done in a timely manner after treatment to maintain a current status of work.
 - h. Upon completion of seasonal removal and herbicide application, site will be monitored, and data on treatment effectiveness will be taken. Enter monitoring data on a continuous basis to track treatment effectiveness and to determine when sites should be surveyed and re-treated.
 - i. Prior to the completion of the grant, take 'after' photos for submission with the final report.

4. All habitat improvements will follow techniques described in the Third Edition, January 1998, of the *California Salmonid Stream Habitat Restoration Manual*, Flosi et al. and the *California Salmonid Stream Restoration Manual*, Third Edition, Volume II, Part XI, January 2004.
5. Submit a progress report to the contract Manager at least once every three months. In addition, if work has been completed under the contract during the three month reporting period, submit an invoice, and a record of in-kind services provided during the invoice billing period. The invoice submission shall include a separate record of specific expenditures in the format of Exhibit B.
6. Upon completion of the project, the Grantee shall return all reusable equipment purchased under this grant.
7. Upon completion of the project, the Grantee shall submit one (1) copy of a draft final report no later than January 31, 2014 for review and comment. Within 30 days of receipt of the draft report, the Project Manager shall submit his final comments to the Grantee. Upon completion of the project, the Grantee shall submit two (2) hard copies of a final written report and one (1) electronic, *Microsoft Word* compatible, copy on 3.5 inch floppy disk(s) or CD. The report shall not be considered final until approved and accepted by the grant manager. The report shall include, but not necessarily be limited to the following information:
 - Grant number;
 - Project name;
 - Geographic area (e.g., watershed name);
 - Location of work – show project location using U.S.G.S. 7.5 minute topographical map or appropriately scaled topographical map;
 - Geospatial reference/location (lat/long is preferred – defined as point, line, or polygon);
 - Project start and end dates;
 - Total of each fund source, by line item, expended to complete the project, breaking down Grant dollars, by line item, and any other funding, including type of match (cash or in-kind service);
 - Total number of volunteer hours; dollar value of volunteer work; description of how the dollar value of the volunteer labor was determined; dollar value of non-volunteer donated labor; and description and dollar value of non-labor in-kind contributions to the project;
 - Expected benefits to anadromous salmonids from the project;
 - Labeled before and after photographs of any restoration activities and techniques;
 - Specific project access using public and private roads and trails, with landowner name and address;
 - Complete as built project description; and
 - Report measurable metrics for the project by responding to the restoration project metrics listed below.

Habitat Protection and Restoration Projects– Reporting Metrics

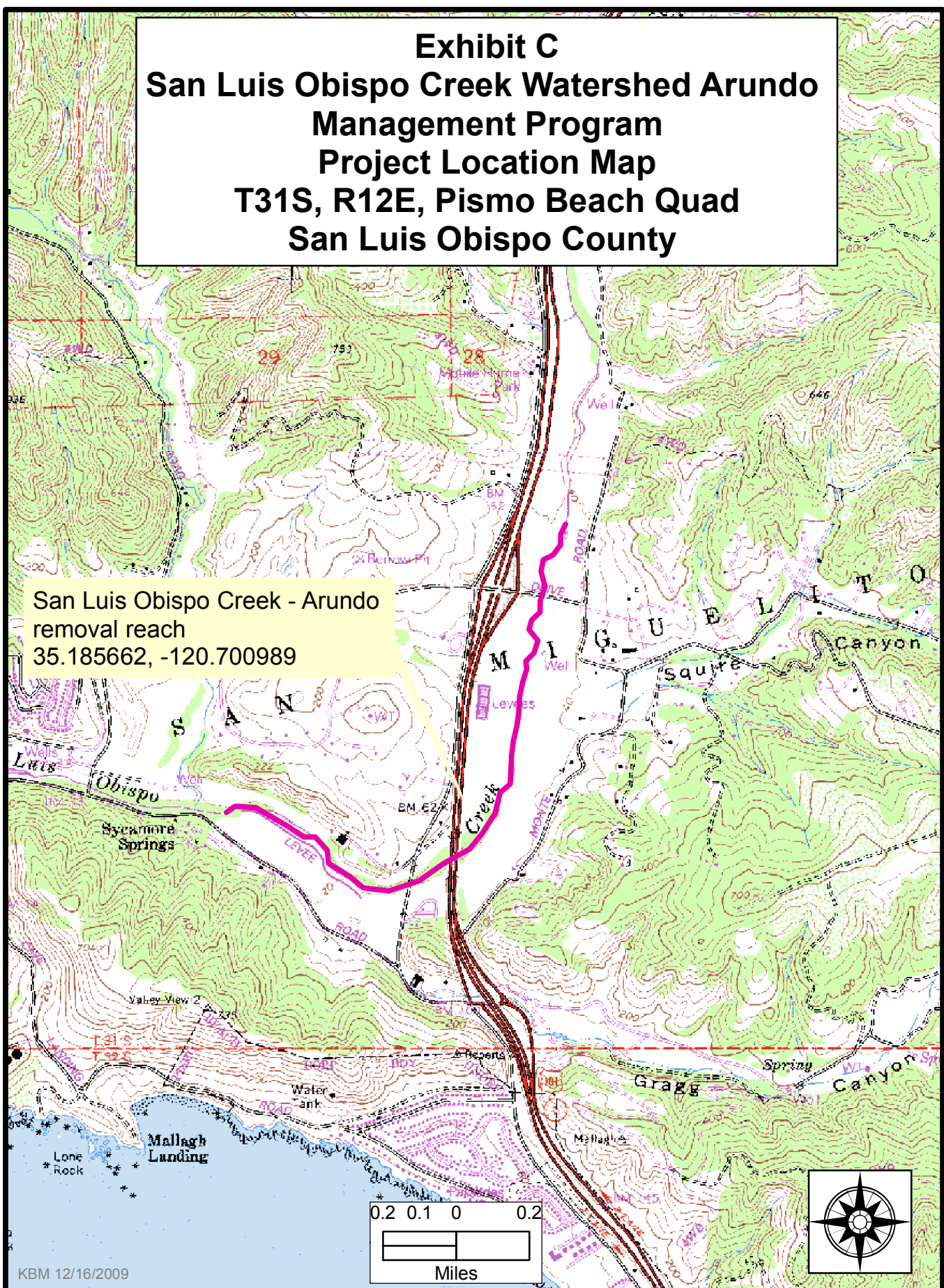
Riparian Restoration (HR)

- Miles of stream treated overall, count stream reach only once, even if it has multiple treatments;
- Miles of riparian stream bank treated, measure both sides of the bank if appropriate;
- Total acres of riparian area treated;
- If the project involves riparian planting:
 - Number of plants;
 - Provisions made for annual survival monitoring and replanting/reseeding;
 - Provisions for watering;

- Acres of riparian area planted;
 - Species scientific names of plants planted;
 - If the project involves livestock exclusion:
 - Miles of fence installed/repared;
 - Type of fencing material proposed;
 - Number of water gap installations;
 - If the project involves plant removal/control:
 - Acres of riparian area treated for removal of non-native invasive plants;
 - Species scientific names of plants removed;
 - If monitoring was included in the project:
 - Type of monitoring, select from: implementation monitoring; compliance monitoring-engineering design; compliance monitoring-project design; pre-treatment monitoring; post treatment monitoring; salmonid monitoring; non-salmonid biological monitoring; water flow monitoring; or physical monitoring; and
 - Location of monitoring, select from: onsite; upstream; downstream; or upslope.
8. The Grantee will acknowledge the participation of the Department of Fish and Game, Fishery Restoration Grant Program funds on any signs, flyers, or other types of written communication or notice to advertise or explain the San Luis Obispo Creek Watershed *Arundo* Management Program.

Exhibit C
San Luis Obispo Creek Watershed Arundo
Management Program
Project Location Map
T31S, R12E, Pismo Beach Quad
San Luis Obispo County

San Luis Obispo Creek - Arundo
removal reach
35.185662, -120.700989



California Department of Fish and Game
Natural Diversity Database
Selected Elements by Common Name - Portrait
723438_125_HR_San Luis Obispo Creek Watershed Arundo Management Program
T31S, R12E

Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
1 Brewer's spineflower <i>Chorizanthe breweri</i>	PDPGN04050			G2	S2.2	1B.3
2 California red-legged frog <i>Rana draytonii</i>	AAABH01022	Threatened		G4T2T3	S2S3	SC
3 Cambria morning-glory <i>Calystegia subacaulis</i> ssp. <i>episcopalis</i>	PDCON040J1			G3T1	S1.2	1B.2
4 Chorro Creek bog thistle <i>Cirsium fontinale</i> var. <i>obispoense</i>	PDAST2E162	Endangered	Endangered	G2T1	S1.2	1B.2
5 Coast Range newt <i>Taricha torosa torosa</i>	AAAAF02032			G5T4	S4	SC
6 Hoover's bent grass <i>Agrostis hooveri</i>	PMPOA040M0			G2	S2.2	1B.2
7 Jones' layia <i>Layia jonesii</i>	PDAST5N090			G1	S1.1	1B.2
8 La Panza mariposa-lily <i>Calochortus obispoensis</i>	PMLIL0D110			G2	S2.1	1B.2
9 Palmer's monardella <i>Monardella palmeri</i>	PDLAM180H0			G2	S2.2	1B.2
10 Pecho manzanita <i>Arctostaphylos pechoensis</i>	PDERI04140			G2	S2.2	1B.2
11 San Luis Obispo County lupine <i>Lupinus ludovicianus</i>	PDFAB2B2G0			G2	S2.2	1B.2
12 San Luis Obispo owl's-clover <i>Castilleja densiflora</i> ssp. <i>obispoensis</i>	PDSCR0D453			G5T2	S2.2	1B.2
13 San Luis Obispo pyrg <i>Pyrgulopsis taylori</i>	IMGASJ0A50			G1	S1	
14 San Luis Obispo sedge <i>Carex obispoensis</i>	PMCYP039J0			G2	S2.2	1B.2
15 Santa Lucia manzanita <i>Arctostaphylos luciana</i>	PDERI040N0			G2	S2.2	1B.2
16 caper-fruited tropidocarpum <i>Tropidocarpum capparideum</i>	PDBRA2R010			G1	S1.1	1B.1
17 chaparral ragwort <i>Senecio aphanactis</i>	PDAST8H060			G3?	S1.2	2.2
18 dune larkspur <i>Delphinium parryi</i> ssp. <i>blochmaniae</i>	PDRAN0B1B1			G4T2	S2.2	1B.2
19 dwarf soaproot <i>Chlorogalum pomeridianum</i> var. <i>minus</i>	PMLIL0G042			G5T1	S1.2	1B.2
20 ferruginous hawk <i>Buteo regalis</i>	ABNKC19120			G4	S3S4	
21 foothill yellow-legged frog <i>Rana boylei</i>	AAABH01050			G3	S2S3	SC
22 merlin <i>Falco columbarius</i>	ABNKD06030			G5	S3	
23 most beautiful jewel-flower <i>Streptanthus albidus</i> ssp. <i>peramoenus</i>	PDBRA2G012			G2T2	S2.2	1B.2

California Department of Fish and Game
Natural Diversity Database
Selected Elements by Common Name - Portrait
723438_125_HR_San Luis Obispo Creek Watershed Arundo Management Program
T31S, R12E

Common Name/Scientific Name	Element Code	Federal Status	State Status	GRank	SRank	CDFG or CNPS
24 mouse-gray dudleya <i>Dudleya abramsii ssp. murina</i>	PDCRA04012			G3T2	S2.3	1B.3
25 prairie falcon <i>Falco mexicanus</i>	ABNKD06090			G5	S3	
26 purple martin <i>Progne subis</i>	ABPAU01010			G5	S3	SC
27 silvery legless lizard <i>Anniella pulchra pulchra</i>	ARACC01012			G3G4T3T4 Q	S3	SC
28 steelhead - south/central California coast ESU <i>Oncorhynchus mykiss irideus</i>	AFCHA0209H	Threatened		G5T2Q	S2	SC
29 straight-awned spineflower <i>Chorizanthe rectispina</i>	PDPGN040N0			G1	S1.2	1B.3
30 western pond turtle <i>Actinemys marmorata</i>	ARAAD02030			G3G4	S3	SC
31 white-tailed kite <i>Elanus leucurus</i>	ABNKC06010			G5	S3	